

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,436,492 B2
APPLICATION NO. : 10/599530
DATED : October 14, 2008
INVENTOR(S) : Braunecker et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page

Item (75) Inventors, change "Berneck" to --Marbach--
ABSTRACT, change "on to a target" to --onto a target-- (line 4)
Delete Title Page and substitute the Attached Title Page therefor

Drawings

Sheet 2, (replace Figure 3)
Delete sheet 2 and replace with attached sheet 2.

Column 1

Line 26, change "air-or" to --air- or--

Column 2

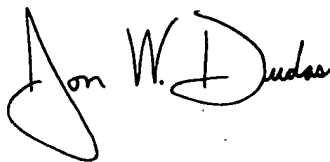
Line 6, change "on to" to --onto--
Line 49, change "component" to --components--
Line 56, change "of transmitter" to --of the transmitter--
Line 65, change "achieved, according" to --achieved, or the achievements are further developed, according--
Lines 66-67, change "Claims or the achievements are further developed." to --Claims.--

Column 4

Line 62, change "FIG. 3" to --FIG. 4--

Signed and Sealed this

Thirteenth Day of January, 2009

A handwritten signature in black ink, appearing to read "Jon W. Dudas". The signature is stylized with a large, looping initial "J" and a distinct "D" at the end.

JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Braunecker et al.

(10) Patent No.: **US 7,436,492 B2**
(45) Date of Patent: **Oct. 14, 2008**

(54) **ELECTRONIC DISTANCE METER
FEATURING SPECTRAL AND SPATIAL
SELECTIVITY**

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Peter Kipfer, Bemeck (CH)**

(73) Assignee: **Lekka Geosystems AG, Heerbrugg (CH)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/599,530**
(22) PCT Filed: **Apr. 1, 2005**
(86) PCT No.: **PCT/EP2005/051478**

§ 371 (c)(1),
(2), (4) Date: **Dec. 30, 2006**

(87) PCT Pub. No.: **WO2005/096009**

PCT Pub. Date: **Oct. 13, 2005**

(65) **Prior Publication Data**
US 2007/0188735 A1 Aug. 16, 2007

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(51) Int. Cl.
G01C 3/08 (2006.01)

(52) U.S. Cl. **356/4.01; 356/5.01; 356/5.1;
342/118**

(58) Field of Classification Search **356/5.01,
356/4.01**

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,450,460 A * 5/1984 Morimoto 250/338.1

4,611,912 A *	9/1986	Falk et al.	356/5.09
5,633,786 A *	5/1997	Cho et al.	356/5.01
5,963,996 A *	5/1999	Morley	42/115
6,111,692 A *	8/2000	Sauter	359/429
6,181,412 B1 *	1/2001	Popescu et al.	356/4.09
2003/0067645 A1 *	4/2003	Ibsen et al.	359/124
2004/0130702 A1 *	7/2004	Jupp et al.	356/5.01
2004/0213527 A1 *	10/2004	Martinson	385/100
2004/0246493 A1 *	12/2004	Abe	356/603

FOREIGN PATENT DOCUMENTS

DE	102 00 632 A	7/2003
FR	2844603 A	3/2004

OTHER PUBLICATIONS

Noriaki Nishi, Takahisa Jitsuno, Masahiro Nakatsuka and Sadao Nakai, "Improvement of Laser-Beam Irradiation-Intensity Distribution Using Multi Lens Array and Edge-Shaped Plates", [Optical Review vol. 5, No. 5 (1998) 285-290].*

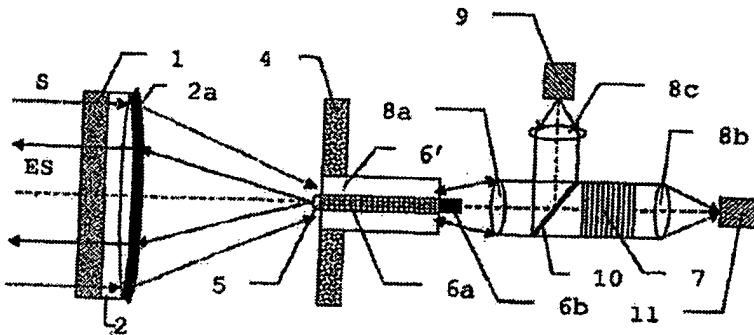
(Continued)

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(57) ABSTRACT

Disclosed is a distance meter, particularly for telescope arrays in ground-based or space-based applications for detecting surfaces. Said distance meter comprises at least one radiation source for emitting electromagnetic radiation on to a target that is to be measured, a receiver unit with a sensor for receiving the radiation reflected by the target and deriving distance data, and a first spectral filter component. According to the invention, the angular spread of reception of the reflected radiation is limited by means of at least one spatial filter component, especially a fiber laser as a radiation source and receiver component.

18 Claims, 2 Drawing Sheets



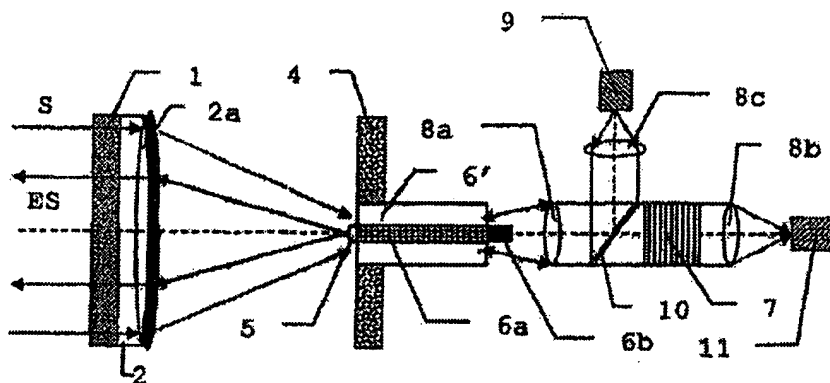


Fig. 3

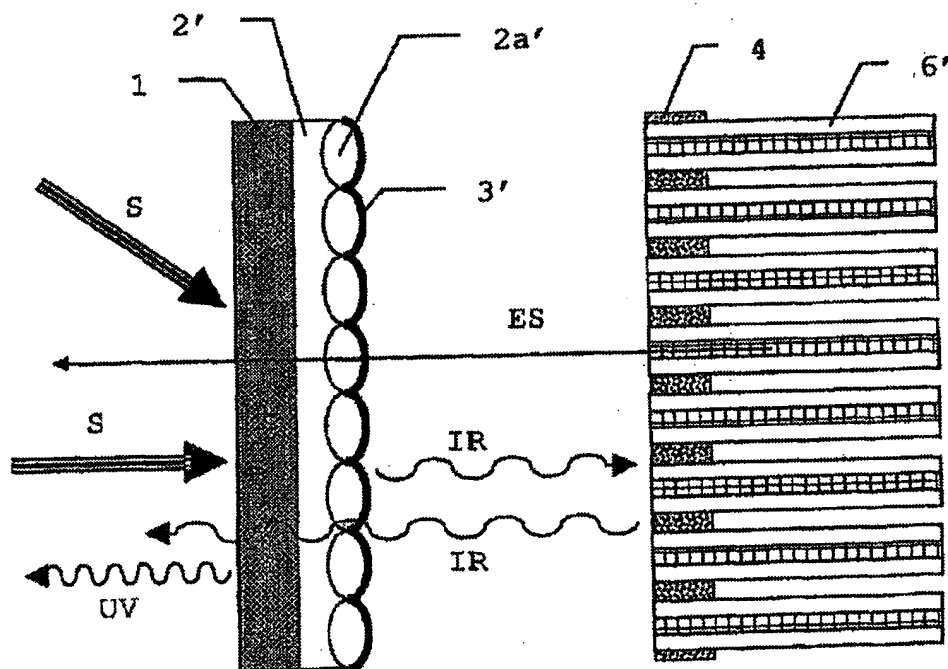


Fig. 4